

Awareness of Cosmetic Dermatology Procedures among Health Workers in a Tertiary Care Hospital

Abstract

Introduction: Cosmetic dermatology is a branch of dermatology which deals with the enhancement of beauty. There is a rise in cosmetic dermatological procedures throughout the world, but its awareness is limited not only in the general population but also among the health workers. **Materials and Methods:** We conducted a cross-sectional questionnaire-based study to know the knowledge and awareness of cosmetic dermatological procedures among health workers in a hospital setting. **Results:** There were a total of 155 respondents. The maximum number of respondents belonged to age group of 20–30 years (65.2%). Female respondents were 66% and males were 34%. Of the total respondents, 39% were medical students, 31% doctors, 23% nurses, 6% OPD assistants, and 1% ward maids. Hinduism was practiced by 91% of the respondents. About 84.5% of subjects were aware of cosmetic dermatological procedures. Regarding the source of information, 34.2% implicated textbooks. According to 53.5% participants, cosmetic dermatological procedures are done by a dermatologist. Around 59.4% responded that they were aware of many procedures such as botox injections, laser hair removal, hair transplant, and chemical peeling; 51% were aware of risks associated with procedures, such as allergy, burns, and pigmentation; 44.5% rated the facility as good; 31% believed that outcome of the procedures is different in Nepal as compared to a foreign countries. About 23.9% thought public disposition will change if they underwent the procedures. Around 11.6% thought this shall negatively affect them; however, 53.5% believed it would be socially acceptable. About 78.1% thought that these procedures are done only in cities with 62.6% believing it is commonly done by high-class economic status people. About 73.5% respondents believed that this was adopted by literate people; 7.1% were concerned about taboos against cosmetic dermatological procedures; 84.5% agreed that there should be awareness program on these procedures. **Conclusion:** We found lack of awareness, knowledge, attitudes, and disposition about cosmetic dermatological procedures among health workers. Further community-based population studies and awareness programmes should be carried out regarding this aspect.

Keywords: Awareness, cosmetic surgery, hair transplant, plastic surgery

Introduction

“Beauty lies in the eyes of the beholder” is a great saying by Greek Philosopher “Plato.” To look young and beautiful has become the inspiration for both men and women irrespective of age. It is not only restricted to developed countries, but also in developing countries, a growing concern of people about their appearance is palpable. This had led to a rise in cosmetic procedures around the world; in United States, for example, 11.7 million cosmetic procedures are performed annually, of which majority are minimally invasive. In Asia, India and China have the largest cosmetic surgery market.^[1] This study is an attempt to establish the knowledge of the

health community in a developing country like Nepal on cosmetic dermatology and their attitude toward this specialty.

Materials and Methods

We performed a cross-sectional, questionnaire-based study among a selected group of health providers in a tertiary care teaching hospital, Nepal Medical College and Teaching Hospital (NMCTH). This study was done between September 2017 and December 2017. The objective of this study was to know the knowledge and awareness of cosmetic dermatological procedures among health workers in a hospital setting. The study group included doctors, nurses, medical students (final year and interns), and ward maids/assistants to assess their knowledge, attitude, and

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perception of cosmetic dermatological procedures. The questionnaire had three parts: the first part assessed biodata and the second assessed the knowledge and awareness of cosmetic dermatological procedures, while the third part assessed the attitude and disposition of the respondents to cosmetic dermatological procedures. A stratified type of sampling for finite population with about 10% from each selected group of health workers from clinical fraternity and who gave voluntary consent of NMCTH was included. Health workers from basic sciences, dermatologists, postgraduate residents (dermatology), and those who did not give consent were excluded from the study. Data were analyzed using SPSS 16 (SPSS Inc., Chicago, IL, UAS), and statistical analysis for descriptive analysis and Chi-square test was carried out to look for any association. Ethical clearance from the institutional review board was obtained before conducting the study.

Results

There were a total of 155 participants. The commonest age group of respondents was 20–30 years (65.2%) followed by 31–40 years (21.3%), more than 40 years (14%), and less than 20 years (4.5%). About 66% of them were females. Of the total respondents, 39% were medical students including interns, 31% doctors, 23% nurses, 6% OPD assistants, and 1% ward maids. Hinduism was practiced by 91% of the respondents, followed by Buddhism (4.5%), Christianity (2.6%), and Islam (1.9%) as shown in Table 1.

About 89% were aware of cosmetic dermatological procedures, 5% were not aware, and 6% were not sure. When asked what the source of information was, 34.2% credited their source to textbooks, 14.8% to television, 18.1% to Internet, 7.1% to medical consultation, and 4.5% to radio alone. More than one source of information like television, Internet, and books was credited by 10.3% responders and 11% did not respond to this question as shown in Table 2. Information was reliable according to 68.4% of responders.

When challenged with question as to who does cosmetic dermatological procedures, 53.5% opted for dermatologist, 18.7% plastic surgeons, 12.3% both plastic surgeons and dermatologist, 1.9% maxillofacial surgeons, <1% general surgeons, 12.2% were not sure, and the rest did not respond as shown in Table 3.

When asked specifically what type of cosmetic dermatological procedures they know about, 59.4% responded that they were aware of many procedures such as botox injections, laser hair removal, hair transplant, and chemical peeling. Around 27.5% were aware of botox, 9% of hair transplant, 7.1% of laser hair removal, 5.8% of chemical peel, and around 10% of other procedures as shown in Figure 1. About 83.2% thought that procedures were being done in Nepal. Enquiring about the cost for cosmetic procedures, 38.7% guessed it to be between NPR

Table 1: Sociodemographic data of the respondents

Sociodemographic variables	Percentage (%)
Age group in years	
<20	4.5
20-30	65.2
31-40	21.3
>40	14
Gender (males: female)	34:66
Religion	
Hindu	91
Buddhist	4.5
Christian	2.6
Muslim	1.9
Occupation	
Medical students and interns	39
Doctors	
Nurses	23
Office assistants	6
Ward maids	1

Table 2: Source of information

Source of information	Percentage (%)
Medical textbook	34.2
Television	14.8
Internet	18.1
Medical consultation	7.1
Radio	4.5
More than one source	10.3
Did not responded	11

Table 3: Participants view of who does cosmetic dermatological procedures

Specialists	Percentage (%)
Dermatologist	53.5
Plastic surgeons	18.7
Both plastic surgeons and dermatologist	12.3
Maxillofacial surgeons	0.6
No response	0.4

20,000 and NPR 40,000, 27.1% below NPR 20,000, and 26.5% nearly NPR 1 lakh.

We found 29% of respondents declaring that their relatives have undergone cosmetic procedures such as hair transplant, chemical peeling, and laser hair removal. About 51% were aware of risks associated with procedures, such as allergy, burn, and pigmentation. About 12.9% were apprehensive of cosmetic dermatological risk to be more than surgical procedures, while 47.1% denied and the rest did not respond.

The majority (about 50.3%) of respondents did not know where these procedures were being done, while of the 31% who knew, 20.6% claimed these services to be available in Kathmandu only, 17.4% in Kavre, and 3.9% in Lalitpur.

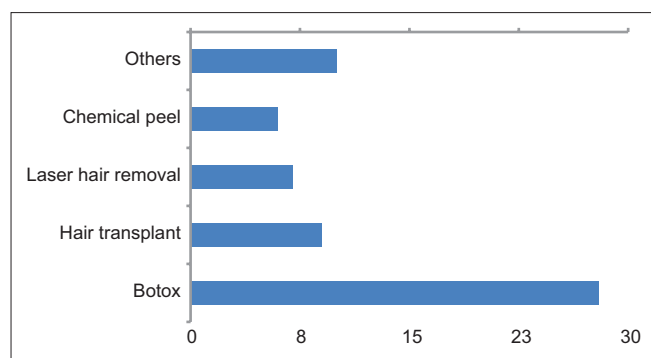


Figure 1: Awareness about type of cosmetic dermatological procedure (in percentage)

They rated the facility as good in 44.5%, average in 40.6%, excellent in 7.1%, and bad in 1.3%, and the rest did not respond. About 31% thought the outcome of the procedures was different in Nepal as compared to foreign countries, and 13.5% implicated this to lack of facility, lack of modern technique, and inexperienced persons.

About 58.1% marked these procedures to be necessary; 47.1% responders opted to go for the procedures if they were free of cost. About 23.9% thought people disposition would change if they underwent the procedures. Around 42.6% did not wish to get under the knife and the remaining did not answer.

These procedures were socially acceptable according to 53.5% participants, while 13.5% were not comfortable with them due to social taboos, unawareness, lack of knowledge, exposure, and so on. About 11.6% were apprehensive that these procedures will negatively affect them as shown in Table 4.

About 78.1% guessed that these procedures were being done in cities; 62.6% believed that these procedures were being undertaken by high socio-economic status people followed by upper middle class (14.6%). About 73.5% believed that literate persons accepted these services.

When enquired about any taboo against cosmetic dermatosurgical procedures, 53.5% responders denied and 7.1% agreed and quoted reasons such as illiteracy and punitive action by God. About 84.5% wanted awareness program on cosmetic dermatosurgical procedures, 10.3% were not sure, and 3.2% denied. For the platform for awareness program, 46.5% recommended social media, 3.2% recommended institution, 2.6% suggested community, and the rest did not respond.

Discussion

Cosmetic dermatology deals with enhancement of normal appearance and flawless skin. Nowadays, people are becoming health conscious, and awareness of the different medical specialties is improving. Despite the tremendous advancements in the field of plastic surgery

Table 4: Social acceptability of cosmetic dermatological procedures among respondents

Perception	Percentage (%)
Socially acceptable	53.5
Not acceptable due to	
Social taboos	6
Unawareness	4
Lack of knowledge	3
Less exposure	1.5
Negatively affect social status	11.6

and cosmetic surgery, there seems to be a limited knowledge among the general public and also among medical professionals regarding the spectrum of cosmetic dermatological procedures and also plastic surgery. There are various factors that may underscore the increase in popularity of cosmetic surgery including the growing importance of physical appearance in contemporary western culture which has served to make the pursuit of appearance-enhancing behavior socially acceptable. Higher dispensable incomes among patients, advances in surgical procedures (particularly in terms of safety), and lower costs of treatments have contributed to reduce patient anxiety about cosmetic procedures.^[2-4] A comparative Table 5 shows different studies about awareness of the procedures according to which Adejeji *et al.* in their study noted the level of awareness to be about 94.4%, Hammadi *et al.*^[5] found 94.02% (about plastic surgery), and Doheyan *et al.*^[6] 94.5% (about cosmetic surgery), while in our study we found awareness among health professionals to be 89%. A similar study done in India by Panse *et al.*,^[7] 12% of participants felt that plastic surgery and cosmetic surgery are the same, and 80% felt that cosmetic surgery is a part of plastic surgery.

Regarding the major source of information, Doheyan *et al.* found that 38% had received their information from television, Adejeji *et al.* found that 49.8% had received their information from television, and Ahmed *et al.* found that 88% had received their information from Internet. We found that 34% of responders had come to know about these procedures from medical textbooks.^[1,5-8] In an Indian study, nurses got their information mainly from television or magazines, though 27% of them gained information through work. They also found that medical students learned about plastic surgery from various sources, but television and magazines were the main source.^[4]

In our study, about 59.4% of responders were knowledgeable about various type of dermatosurgical procedures. In a prior Indian study, 37% of participants believed that plastic surgery is an expensive surgery and meant for the rich and the famous.^[4] In our study, significantly higher proportion, that is, 62% of the respondents felt that these procedures are more acceptable in higher class and cities. Adejeji *et al.* found that 48.3%

Table 5: A comparative table, showing different studies about awareness of the cosmetic procedures (in percentage)

Author	Awareness	Source of information (majority)	Cost involved in the procedures	Risk Associated	Who does the procedures
Adejeji <i>et al.</i> ^[1]	94.4	49.8(television)	\$326	83.1	75.1 (plastic surgeons)
Hamadi <i>et al.</i> ^[5]	94.02	-	-	-	-
Doheyan <i>et al.</i> ^[6]	94.5	38(television)	-	-	-
Ahmed <i>et al.</i> ^[8]	88(television)	-	-	-	-
Present study	89	34(medical textbook)	\$400	51	(Dermatologist) 53.5

of the respondents felt that the price of cosmetic surgery is above \$326 (NPR 50, 000), while in our study 34.2% felt it was above NPR 40,000 (400\$).^[1] Doheyan *et al.* found that people with family monthly income of >400\$ underwent significantly more cosmetic surgeries (42.8%).

Adejeji *et al.* recorded that about 83.1% of respondents felt that there are various forms of risks associated with cosmetic surgery which include deformation of body parts, cancer, keloid, death, infection, and bleeding, but in our study subjects were more concerned about risks of allergy, burns, and pigmentation.^[1] According to Otene *et al.*, wrinkling and disfigurement were the commonest risks.^[9]

The majority of the responders, about 50.3%, did not know where it was being done. When asked of the facilities in the country, 44.5% responded the facilities are good as compared to 47.4% in the Nigerian study.^[1] The majority (53.5%) of the respondents agreed that the cosmetic procedures were done by dermatologists, whereas in the Nigerian study, 75.1% respondents agreed that the cosmetic procedures were done by plastic surgeons.^[1] About 58.1% thought it is necessary to do procedures as compared to 65.3% by Adejeji *et al.*^[1] About 23.9% thought people disposition will change if they do the procedures. About 11.6% thought otherwise and were apprehensive of its negative impact. It was socially acceptable according to 53.5% and not in 13.5%, the major reasons being social taboos, unawareness, lack of knowledge, exposure, and so on. However, there was no particular religious or cultural taboo or belief against cosmetic surgery. The study reported a positive association between openness and choice of going for cosmetic surgery, although previous work has reported a similar positive association between openness and positive self-evaluations of appearance.^[10] Women were more likely than men to undergo cosmetic surgery, which is consistent with previous works in which participants were asked to rate their likelihood of having various cosmetic procedures.^[11-14]

The level of education regarding who does the procedures according to respondents is 73.5% in literate groups. Enquiring about any taboos that are against cosmetic dermatological procedures, 7.1% agreed and the reasons that were told were illiteracy and punishment by God. About 84.5% agreed that there should be awareness program on cosmetic dermatological procedures. The platform they recommended were social media (46.5%),

institution (3.2%), community (2.6%), and the rest did not respond. Health talks on cosmetic surgery, debates, and question and answers on radio and television about these developing areas of plastic surgery will assist in educating the public and correcting any misgivings on cosmetic surgery. A study by Valikhani and Goodarzi saw that patients seeking cosmetic surgery with high self-knowledge had lower levels of depression, anxiety, and stress compared to patients with low self-knowledge.^[14] Shah *et al.* demonstrate that the combination of problematic medical marketing, recognized and unrecognized boards, and varying categorizations of surgeons has made it increasingly difficult for a patient to interpret the necessary information to decide which physician can safely perform surgery to improve one's appearance.^[15]

A Singapore-based study suggested that younger population is increasingly accepting of cosmetic procedures, and education of both the general public and medical students may help prevent potential medicolegal issues.^[16] A Hong Kong-based study revealed that participants were not willing to marry women who had cosmetic surgery.^[17] A UK study suggested that religiously conservative individuals have stricter views about deception and sins of vanity and less likely to undergo cosmetic surgery than more liberal or atheist individuals.^[18]

There is a significant statistical association between gender and awareness of cosmetic dermatological procedures ($P = 0.000$). There was no statistical association between awareness and knowledge of cosmetic dermatological procedures and also the attitude and disposition of the respondents to cosmetic dermatological procedures. The majority of the respondents were not aware of different types of dermatological procedures, its availability, and cost and risk associated with procedures, but believed that it is done among high economic class people living in cities. Hence, public education has a role, and awareness program should be instituted in social media and community.

Limitation of the study

As it was a questionnaire-based study, the following limitations were identified. First, though the awareness according to the respondents was high, they failed to respond to particular questions such as the type of procedures and who did the procedures, which shows they were not aware of the procedures or have heard about these

for the first time. Few respondents had not responded to particular question but responded to subquestion. The majority of the respondents who responded that the source of information is from textbook, either they have guessed it or just for the sake of answering they had ticked the option. Usually, in standard medical textbook other than the dermatological textbook, details of these procedures are not given. Hence, awareness program in healthcare institution and in community through health talks and social media should be carried out about this specialty.

Conclusion

Although there is tremendous development in areas of cosmetic dermatology around the world, there is still lack of awareness about knowledge, attitudes, and disposition about cosmetic dermtosurgical procedures among health workers in our part of the world. Further population-based study based in the community should be carried out with more awareness program about the specialty in healthcare system and in platform, such as social media, institutions, and community.

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Conflicts of interest

There are no conflicts of interest.

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